## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE ş

Ş

ş §

Š ş

§ Š

Ś

ş

ş

Group Art Unit: 1753

Examiner: Edna Wong

In re Application of:

Sun et al.

Serial No.: 10/616.097

July 8, 2003

Confirmation No.: 1645

For: Multiple-Step

Electrodepositon Process for Direct Copper Plating

on Barrier Materials

MAIL STOP AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir

Filed:

## DECLARATION UNDER 37 C.F.R. § 1.132

- I, Aron Rosenfeld, hereby declare as follows:
- I have reviewed and understand the content of United States Patent Application Publication No. 2003/0155247 A1 to Miura:
- I have reviewed and understand the content of United States Patent No. 2. 6,528,412 to Wana:
- I have reviewed and understand the claimed subject matter of United States Patent Application No. 10/616,097 of the present application including the claims recited in the response to office action dated June 28, 2007;
- 4 I have reviewed and understand the content of the Office Action dated July 13. 2007 and the Examiner's position described in the Office Action;
- Miura describes a seed layer preservation process for preventing an existing 5. copper seed layer deposited on a barrier layer from being lost during a subsequent bulk copper plating process. Miura's teachings cannot be interpreted as a process for direct

depositing a seed layer on a barrier layer because the seed layer preservation process as taught by *Miura* requires an existing copper seed layer deposited on a barrier layer to enable the subsequent bulk copper plating process;

- 6. Wang describes a seed layer repair process to repair holes or discontinuity in an existing copper seed layer prior to a bulk copper plating process. Wang's teachings cannot be interpreted as a process for direct depositing a seed layer on a barrier layer because the seed layer repair process as taught by Wang will provide copper ions to bridge over holes or discontinuity in the existing copper seed layer rather than directly depositing a copper seed layer on a barrier layer.
- 7. All statements made herein of my own knowledge are true and that these statements made on information and belief are believed to be true and further that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent resulting therefrom.

10/25/67 Data Aron Rosenfeld